

40 W Multiple Current Dimming LED Power Supply

IZCVAR-040M-9020C-SAL

Product Overview

IZCVAR-040M-9020C-SAL is a 40W IP20 constant current LED power supply. Differentiating from off the shelf LED power supplies the IZCVAR-040M-9020C-SAL has a selectable current setting ranging from 350mA to 1050mA. This series is also designed with a 3 in 1 dimming function (0-10Vdc or PWM signal or resistance) that simplifies the brightness adjustment for system designers so as to achieve light reduction and energy conservation.



Applications:

- LED Spot Lighting
- LED Strip Lighting
- LED Decorative Lighting
- Indoor LED Lighting

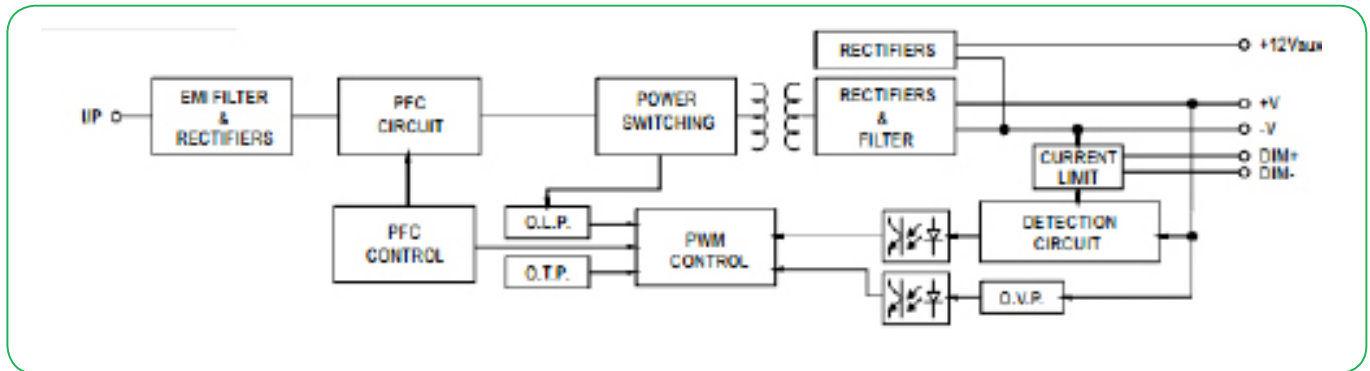
Technical Features:

- Output current level selectable by Dip Switch
- 180~295 VAC input only
- Built-in active PFC function
- Protections: Short circuit / Over voltage / Over temperature
- Cooling by free air convection
- Fully isolated plastic case
- Class II power unit, no FG
- Built-in 0~10Vdc or PWM signal or resistance dimming function (NTC is not used)
- Built-in 12/50mA auxillary output
- IP20 design
- Temperature compensation function by external NTC
- No load power consumption <1W(Note.7)

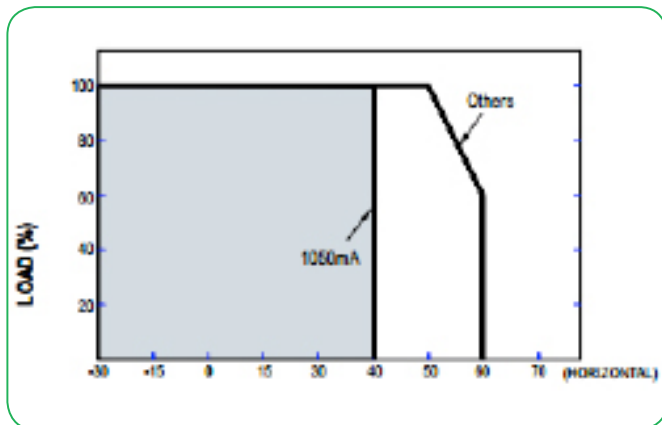
Product Options

ILS PART NUMBER		IZCVAR-040M-9020C-SAL					
Output	Selectable Current	350mA	500mA	600mA	700mA	900mA	1050mA
	DC Voltage Range	2~100V	2~80V	2~67V	2~57V	2~45V	2~40V
	Rated Power	42W					
	Ripple Current	±5.0%					
	Ripple & Noise	700mVp-p					
	No Load Output Voltage	110V				65V	
	Current Accuracy	±5.0%					
	Setup, Rise Time	500ms, 80ms/230VAC at rated power					
	Hold Up Time	16ms/230VAC at rated power					
Input	Voltage Range	180~295VAC					
	Frequency Range	47~63Hz					
	Power Factor	PF 0.975/230VAC, PF 0.96/277VAC at (Please refer to "Power Factor Characteristic" curve)					
	Total Harmonic Distortion	Total harmonic distortion will be lower than 20% when output loading is 75% or higher					
	Efficiency	91%					
	AC Current	0.23A/230VAC 0.2A/277VAC					
	Inrush Current	COLD START 20A(t=260 s measured at 50% I) at 230VAC					
	Leakage Current	<0.5mA/240VAC					
Protection	Short Circuit	Constant current limiting, recovers automatically after fault condition is removed					
	Over Voltage	110~130V Protection type: Shutdown o/p voltage, re-power on to recover					
	Over Temperature	Shut down o/p, re-power on to recover					
Function	Auxiliary Power	12V @ 50mA for driving fan: Tolerance ±5.0%					
	Temp Compensation	By external NTC(not provide with the power supply), please see "Temperature Compensation Operation"					
	Dimming	Please see "Dimming Operation"					
	Synchronization	Please see "Synchronization Operation"					
Environment	Working Temp	-30~+60°C					
	Working Humidity	20~90% RH non-condensing					
	Storage Temp, Humidity	-40 ~ +80 , 10 ~ 95% RH					
	Temp Coefficient	±0.03%/ (0 ~ 50)					
	Vibration	10 ~ 500Hz, 2G 10min./1cycle, period for 60min. each along X, Y, Z axes					
Safety & EMC	Safety Standards	UL8750, ENEC EN61347-1, EN61347-2-13, EN62384 independent, GB19510.14, GB19510.1 approved					
	Withstand Voltage	I/P-O/P:3.75KVAC					
	Isolation Resistance	I/P-O/P:>100M Ohms / 500VDC / 25 / 70% RH					
	EMC Emission	Compliance to EN55015, EN61000-3-2 Class C(40%) ; EN61000-3-3; GB17625.1, GB17743					
	EMC Immunity	Compliance to EN61000-4-2,3,4,5,6,8,11, EN55024, EN61547 light industry level (surge 2KV), criteria A					
Other	MTBF	260.6K hrs min. MIL-HDBK-217F (25)					
	Dimension	123.5*81.5*23mm (L*W*H)					

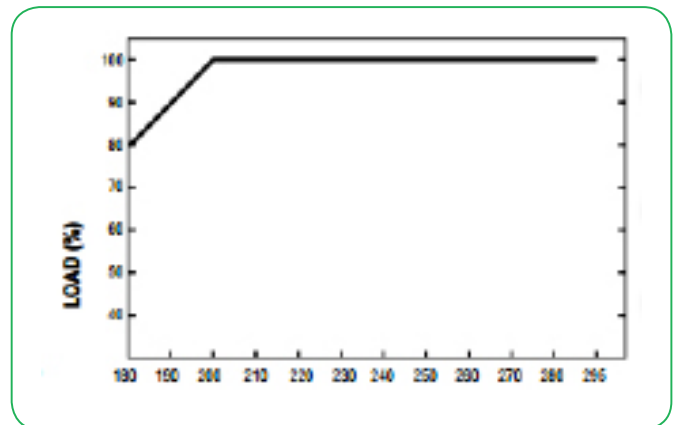
Block Diagram



Derating Curve



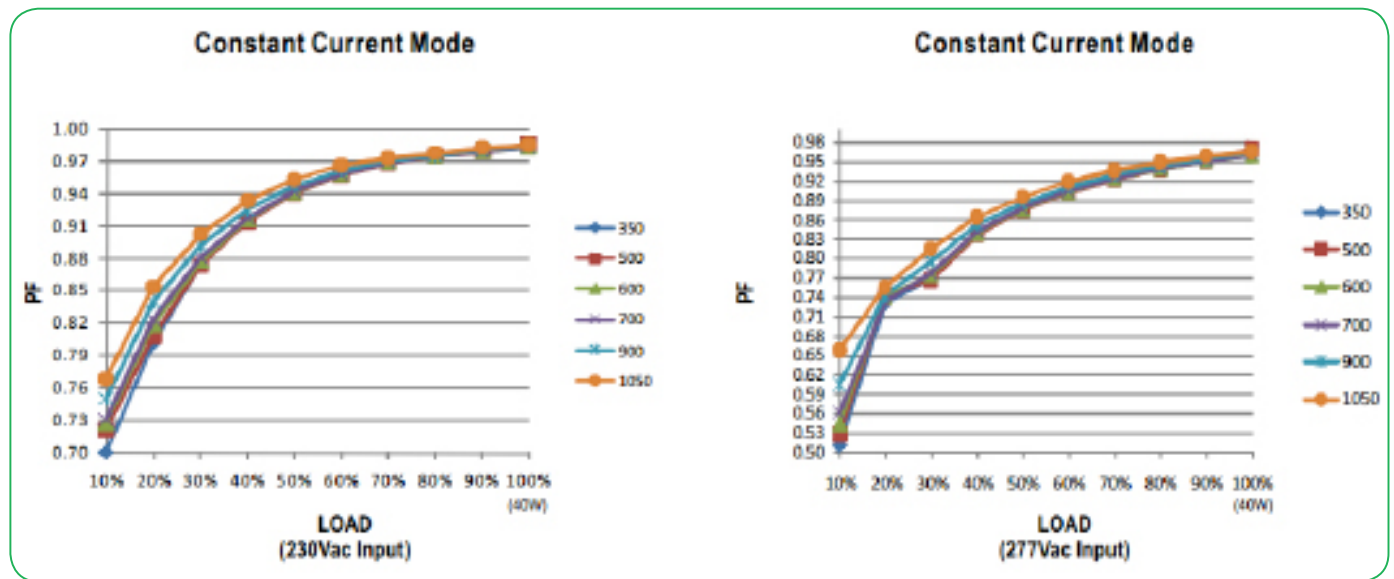
Static Characteristics



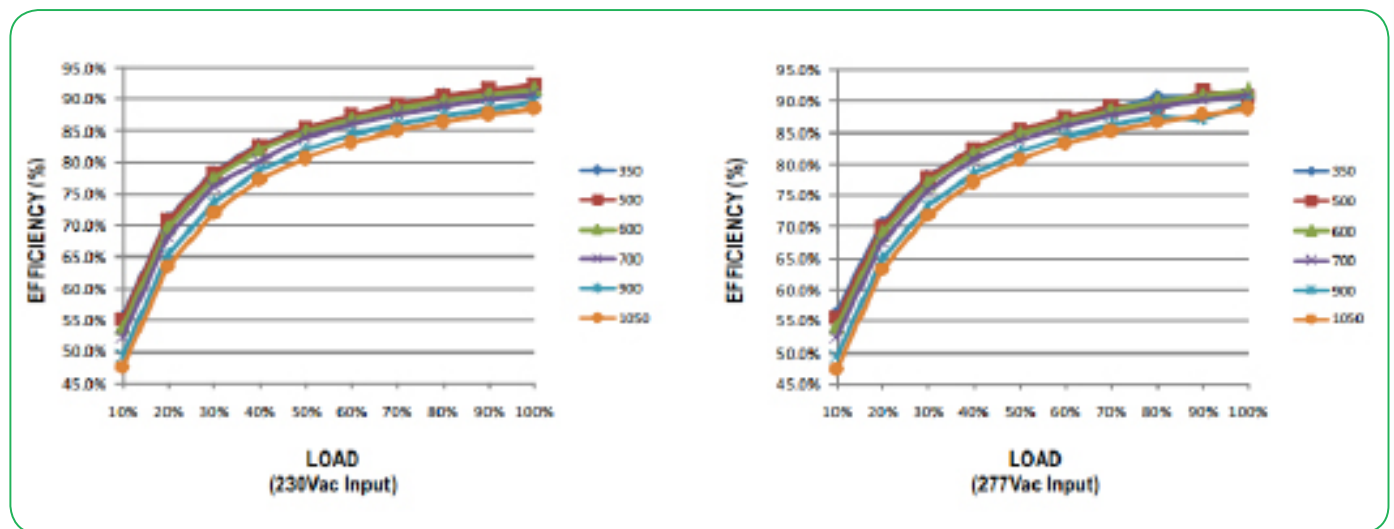
Dip Switch Table

	Dip Switch	1	2	3	4	5	6
Lo							
350mA		OFF	OFF	OFF	OFF	OFF	OFF
500mA		ON	OFF	OFF	OFF	OFF	OFF
600mA		ON	ON	OFF	OFF	OFF	OFF
700mA		ON	ON	ON	OFF	OFF	ON
900mA		ON	ON	ON	ON	OFF	ON
1050mA		ON	ON	ON	ON	ON	ON

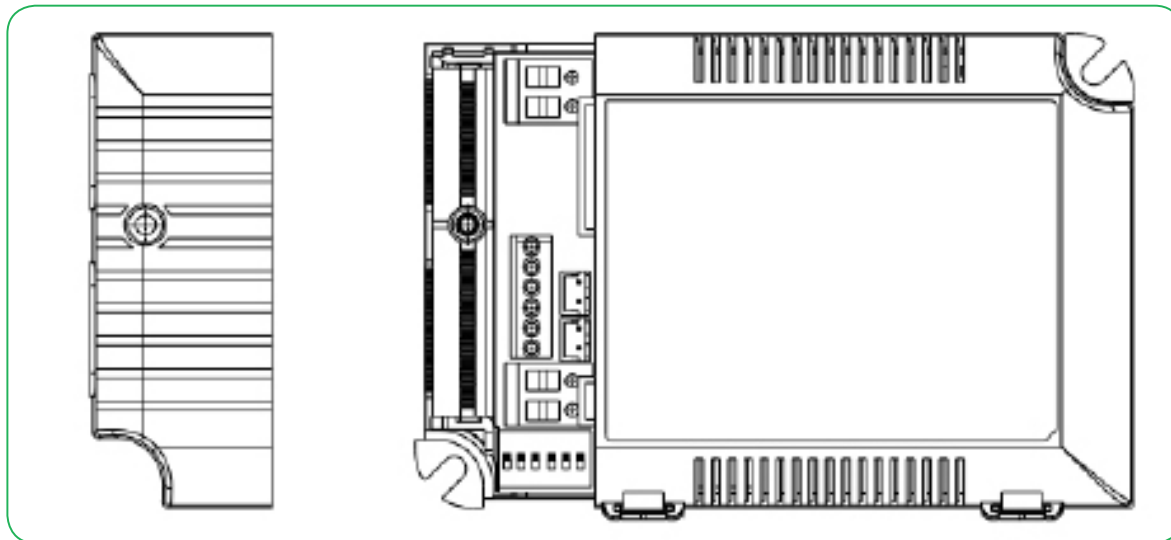
Power Factor Characteristic



Load vs Efficiency



DIMMING OPERATION



Built-in 3 in 1 dimming function, output constant current level can be adjusted through output terminal by connecting a resistance or 0 ~ 10Vdc or 10V PWM signal between DIM+ and DIM-.

Please DO NOT connect "DIM-" to "-Vo"

Reference resistance value for output current adjustment (Typical)

Resistance Value	Short	10K	20K	30K	40K	50K	60K	70K	80K	90K	100K	Open
% of Rated Current	0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%	100%~108%

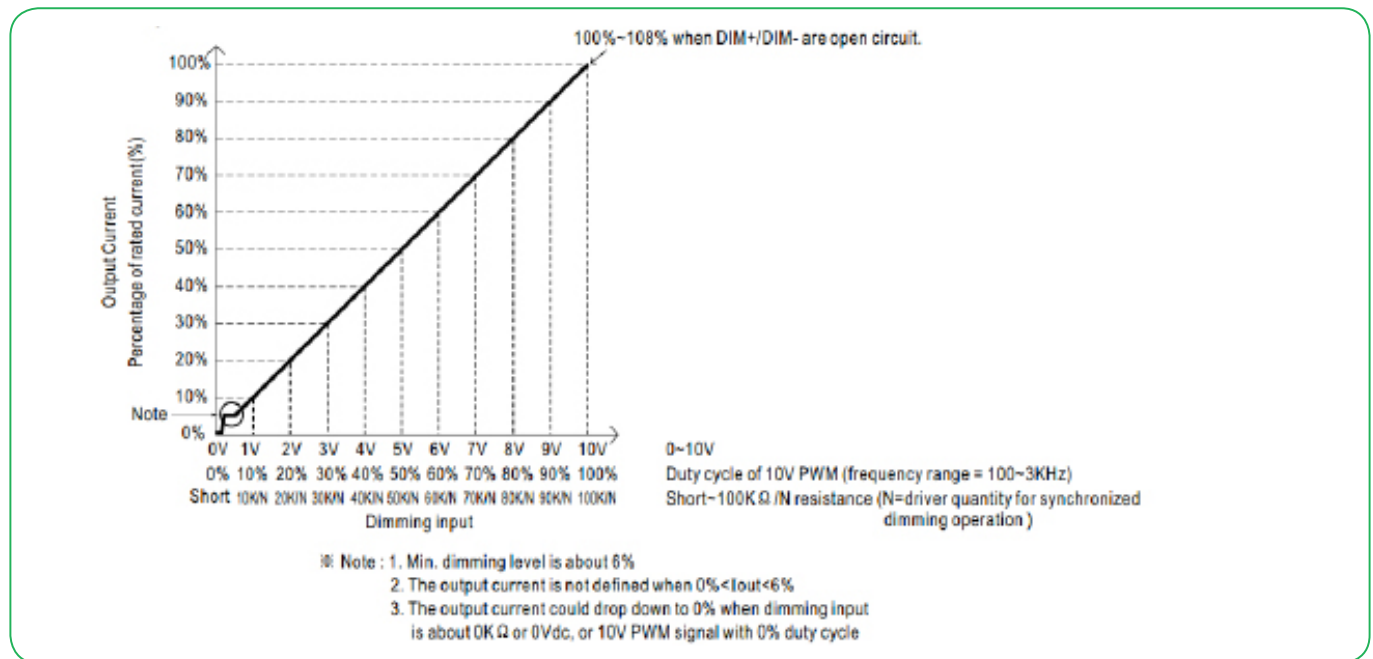
0 ~ 10V dimming function for output current adjustment (Typical)

Dimming Value	0V	1V	2V	3V	4V	5V	6V	7V	8V	9V	10V	Open
Output Current	0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%	100%~108%

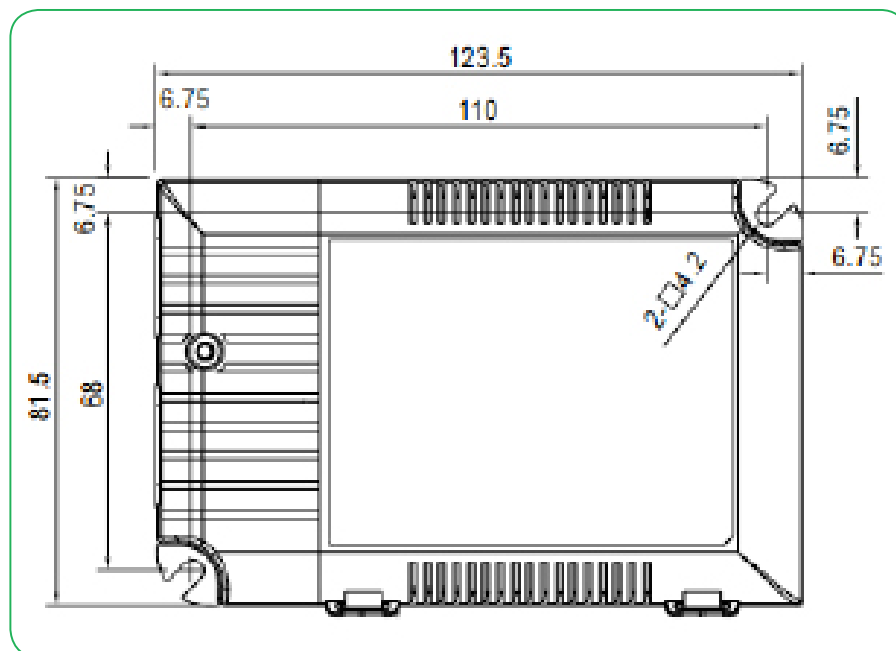
10V PWM signal for output current adjustment (Typical): Frequency range :100Hz ~ 3KHz

Duty Value	0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%	Open
Output Current	0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%	100%~108%

Dimming Characteristic



Technical Drawing



For further information please contact ILS

The values contained in this data sheet can change due to technical innovations. Any such changes will be made without separate notification.